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Office of River Protection, State of Washington Department of Ecology
Change Notice

1. Document Title and Number: RPP-12711, Rev. 6-G "POR104 to AN-06A HIHTL Replacement"		
2. Minor Field Change: □ Yes: (WRPS Signature Only - Attach signed form) X No: Proceed to Box 3	**3.** Document Issue Date: TBD **4.** Document Modification Notice Date: 7/24/12	**5.** Notice Number: 2012-06
6. Do proposed changes require significant schedule changes? □ Yes X No	**7.** Do proposed changes include specific additions, deletions, or modification to scope and/or requirements which affect the overall intent of the plan? □ Yes X No	**8.** (Check only one box) □ Significant Modification (Check if the answer to question in either section 6 or 7 is "yes". Significant modifications require revision of the document.) Minor Modification X Requires modification of the document X Can be accomplished with Modification Notice.
9. Description and Justification of Change: **Change Description:** RPP-12711, Rev. 6-G "POR104 to AN-06A HIHTL Replacement" must be updated to reflect the replacement of HIHTLs. Changes are limited to Tables A-1 & A-2. **Justification:** These changes are required by the plan. See attached page changes.		
10. Impact of Change: None.		
11. Additional Requirements and/or Provisions[1]:		

Approvals

Washington River Protection Solutions, LLC.	Office of River Protection	State of Wash., Dept. of Ecology
□ Provisional Approval[2] Date	□ Provisional Approval[2] Date	□ Provisional Approval[2] Date
□ Final Approval Date 7-25-12	~~□ Final Approval~~ Date 7/27/12	~~□ Final Approval~~ Date 7/25/12

Notes

1 - For use by Ecology to identify any additional information needed to make a decision regarding the request for modifications. In addition, Ecology will identify actions, if any, regarding the modification request that DOE may take pending Ecology's final decision

2 - Provisional approval allows DOE and it's contractors to take specific actions identified in section 11, prior to final approval of this modification.

WMA-C

Temporary Waste Transfer Line Management Program Plan

Author Name:
JR Parham
Washington River Protection Solutions, LLC
Richland, WA 99352
U.S. Department of Energy Contract DE-AC27-08RV14800

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Abstract: This plan defines a program to ensure temporary waste transfer routes are managed in a manner that ensures compliance with environmental regulations. Appendix A contains an evaluation of the methods and sensitivity of leak detection associated with temporary waste transfer lines. Appendix B describes waste handling and waste minimization for HIHTLs. Appendix C describes flushing, draining and removal of HIHTLs. Appendix D describes HIHTL service life extension considerations.

Release Approval Date Release Stamp

Approved For Public Release

Table A-1. In-Pit Leak Detection Methods and Limitations.

Pit			Leak Detection			
Pit Location	**Pit Type**	**Transfer Line Type, EIN, and Connecting Pit**	**Device**	**Method**	**Modification**	**Limitation**
S-102	Distributor pit for SST	HIHTL I-30512-0-1 (to S-A)	Coffer dam (H-2-46155) and leak detector (H-2-34965)	Waste pools and leak detector alarms after 1-in. accumulation in pit floor.	Coffer dam is self draining with a 5/8-in. hole.	Waste must fill the encasement hose before filling pit. Coffer dams contain a 5/8-in. hole, drilled slightly below grade, to allow the pit to drain without operator intervention. Leak of a liquid with a viscosity equal to water requires a flow rate equal to or greater than 1.3 gpm to pool.
AN-106	DST pump pit AN-106A	HIHTL-12501-01 HIHTL-12501-02 (to POR104 portable valve pit C Farm retrieval) HIHTL-12501-03 HIHTL-12501-04 (to POR104 portable valve pit C Farm retrieval)	In-line leak detector (H-2-34965) Pump pit dwg. Previously installed on H-2-72010 Sh 1 Connected to POR104 Per ECN-721373	Waste pools and leak detector alarms after 1-in. accumulation in pit floor.	None	Waste must fill the encasement before waste can be detected by the pump pit leak detector and alarm when 1" of liquid is accumulated.
POR117 (located between C-108 and POR209)	TVFM (Throttle Valve Flow Meter) Box	HIHTL I-34610-0-01 (to POR209 diversion box) HIHTL I-57780-0-02 I-26119-0-02 (to C-109 saltwell pump pit)	In-line leak detector (H-2-34965-010) TVFM Box install per ECN-10-000946	Waste pools and leak detector alarms after 1-in. accumulation in pit floor.	None	Waste must fill the encasement before waste can be detected by the pump pit leak detector and alarm when 1" of liquid is accumulated. If POR117 and POR209 are set at the same elevation, waste must accumulate in both structures to the alarm level.

Table A-1. In-Pit Leak Detection Methods and Limitations.

Pit			Leak Detection			
Pit Location	**Pit Type**	**Transfer Line Type, EIN, and Connecting Pit**	**Device**	**Method**	**Modification**	**Limitation**
POR104 (located next to C-103)	Portable valve pit	HIHTL I-12023-0-06 I-71065-0-01 (to POR209 Diversion Box) HIHTL I-12023-0-05 I-57780-0-04 (to POR209 Diversion Box) HIHTL-12501-01 HIHTL-12501-02 (to AN-106 Pump Pit) HIHTL-12501-03 HIHTL-12501-04 (to AN-106 Pump Pit)	In-line leak detector (H-2-34965-010) valve pit (VI File 50307 Supplement 4 and 10, ES-C35-VP-1)	Waste pools and leak detector alarms after 1-in. accumulation in pit floor.	Sump pump used to remove waste in case of leak.	Waste must fill the encasement before waste can be detected by the pump pit leak detector and alarm when 1" of liquid is accumulated. If POR209 and POR104 are set at the same elevation, waste must accumulate in both structures to the alarm level.

Table A-2. Transfer Line and Pit Hold-up/Estimated Time for Leak Detection.

A	B	C	D	E	F	G	H	I	J	K	L	M
Hose					Pit				Total Volume and Time @ 2 gpm			Min. Detectable Leak Rate in Pit [4] (gpm)
Transfer Line Type and EIN[1]	Transfer Line Length (ft)	Hold-up Volume of 4-in. annulus (gal)[2]	Time to fill hose @ 2 gpm Leak (min)	HIHTL Assembly Drawing	Pit	Hold-up Volume of 1 in. (gal)	Time to Fill Pit to1 in. (min)[3]	Pit Drawing	Total Hold-up Volume (Col C+G) (gal)	Total Time (Col D+H) (min)	Total Time (hr)	
HIHTL I-49637-0-11 I-49637-0-4 I-49637-0-5 I-49637-0-6	1,775	609.6	305	H-14-105610	U-D	74.6	107	H-2-37320	684.2	411	6.9	1.38
					ASSD on SY-102	12.4	18	H-14-103592	622.0	323	5.4	0.43
HIHTL (2 in. x 4 in) I-30512-0-1	100	34.3	17	H-14-105610	S-102	26.1	37	H-2-46525	60.5	54	0.9	1.35
					S-A	74.6	107	H-2-46151	109.0	124	2.1	1.35
HIHTL-12501-01 HIHTL-12501-02 (jointed assembly)	380 + 330 = 710	244.3	122.2	H-14-106526	Valve box assembly (POR104)	58.4	29.2	RPP-19419 (ES-MI)	302.7	151.4	2.52	0.21
					AN-06A	69.8	34.9	H-2-71912	314.1	157.1	2.62	0.22
HIHTL-12501-03 HIHTL-12501-04 (jointed assembly)	380 + 340 = 720	247.7	123.9	H-14-106526	Valve box assembly (POR104)	58.4	29.2	RPP-19419 (ES-MI)	306.1	153.1	2.55	0.21
					AN-06A	69.8	34.9	H-2-71912	317.5	158.8	2.65	0.22

Table A-2. Transfer Line and Pit Hold-up/Estimated Time for Leak Detection.

A	B	C	D	E	F	G	H	I	J	K	L	M
	Hose				Pit				Total Volume and Time @ 2 gpm			Min. Detectable Leak Rate in Pit [4] (gpm)
Transfer Line Type and EIN [1]	Transfer Line Length (ft)	Hold-up Volume of 4-in. annulus (gal) [2]	Time to fill hose @ 2 gpm Leak (min)	HIHTL Assembly Drawing	Pit	Hold-up Volume of 1 in. (gal)	Time to Fill Pit to 1 in. (min) [3]	Pit Drawing	Total Hold-up Volume (Col C+G) (gal)	Total Time (Col D+H) (min)	Total Time (hr)	
Hose-in-Hose Transfer Line I-15390-0-01 Hose #1	86.3	29.7	14.9	H-14-107326	POR134 Diversion Box	108.6	54.3	H-14-107391	138.3	69.2	1.15	0.10
					C-104 Pump Pit (C-04A)	99.5	50	H-2-41343	129.2	64.9	1.08	0.09

Drawing H-2-93633, Revision 1, *Piping, Floor Drain Seal Assembly*, Kaiser Engineers Hanford Company, Richland, Washington.

Drawing H-14-103355, Revision 2, *Instrument 241-AN-01A Pump Pit Elevations and Details*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-103592, Revision 2, *Rapid Mitigation SYS ASSD General Arrangement*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Drawing H-14-103596, Revision 2, *SY-101 Cross-site Transfer System Hose and Hose Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-103661, Revision 1, *RAPID Mitigation System, PPP Seal Loop Dam Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-103928, Revision 2, *Interim Stabilization Continuous Hose Transfer Line Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-103929, Revision 2, *Interim Stabilization Jointed Hose Assembly*, U.S. Department of Energy, Richland, Washington.

Drawing H-14-103935, Revision 2, *Interim Stabilization General Hose Support Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-104863, Revision 1, *Mechanical Piping Plan*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-105311, Revision 0, *Interim Stabilization Jointed and Swaged Hose Transfer Line Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-106526, Revision 8, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-105610, Revision 1, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-105994, Revision 0, *In-Line Leak Detector Well Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-106036, Revision 0, *In-Line Leak Detector Well Assembly*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

Drawing H-14-106091, Revision 1, *Leak Detector Assembly Typical Details*, U.S. Department of Energy, Office of River Protection, Richland, Washington.

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